MAINE INBRE
IDeA NETWORK OF BIOMEDICAL RESEARCH EXCELLENCE

2,600+ students
in Maine have received hands-on biomedical research experiences

100+ jobs
created and sustained in Maine

65%
increase in science majors at participating colleges over the past five years

90%
of INBRE graduates pursue advanced degrees/careers in scientific/medical fields

21%
of INBRE graduates pursue advanced degrees/careers in Maine

$87 million
in direct federal funding since 2001

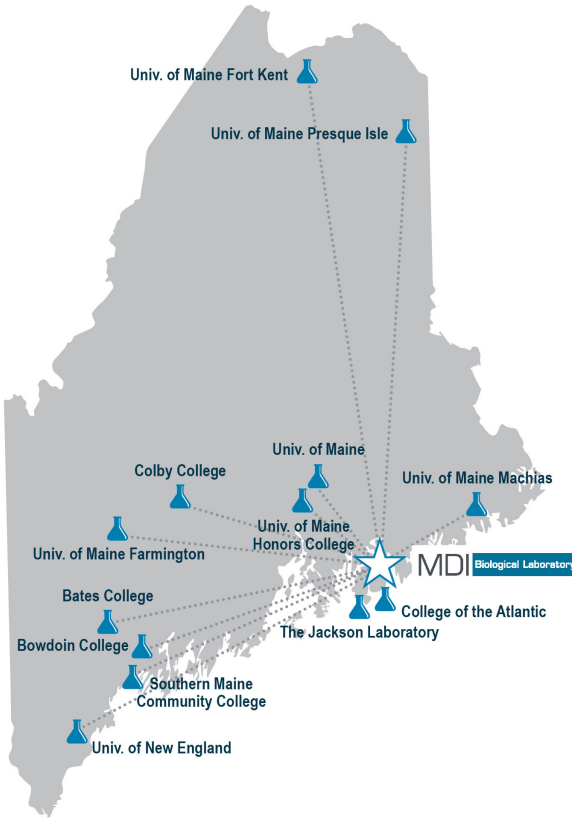
$110 million
leveraged in additional grants since 2001

Maine's Bioscience Workforce

A collaborative network of 14 research and academic institutions in Maine is expanding biomedical research and career opportunities in the state: The Maine IDeA Network of Biomedical Research Excellence (INBRE).

The Maine INBRE:

- Provides hands-on research experiences to students, teaching the technical skills needed for success in biomedical research careers.
- Provides research support to help early career faculty establish labs and compete for federal grants.
- Modernizes scientific infrastructure through investments in shared, state-of-the-art equipment.



Maine INBRE is supported by an Institutional Development Award (IDeA) from the National Institute of General Medical Sciences of the National Institutes of Health, grant number P20GM103423.

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Success Stories

Sydney Bonauto (Bowdoin College '23) received an INBRE undergraduate fellowship while a neuroscience major in the lab of Jennifer Honeycutt, a current INBRE research faculty (2021-24) and a former ME-INBRE student herself. A first-generation college student, Dr. Honeycutt (Colby College '10) was mentored by former INBRE research faculty (2010-15) Melissa Glenn, Ph.D., who is now the Associate Provost for Academic Programs at Colby. Bonauto's mentored research experience enabled her to be accepted into the neuroscience Ph.D. program at Tufts University in the fall of 2023.

Honeycutt Lab at Bowdoin College; Bonauto bottom right

"One of the best products of my INBRE award this year was recognition by the Society for Neuroscience of our innovative research, selecting our abstract to be featured at a sponsored Press Conference. I am incredibly proud of the students I have had the privilege of mentoring " - *Jennifer Honeycutt, Bowdoin College*

Sally Molloy, Ph.D., an associate professor at the University of Maine, received a $432,000 R15 grant award from the NIH to support her research on the mechanisms by which bacteriophages contribute to antibiotic resistance, a direct outcome of her INBRE research project. Molloy directly mentored over 18 students during her INBRE project and supported 122 undergraduate student authorships on 50 abstracts during this time. She was recognized by the university with a Faculty Mentor Impact Award for her student advocacy efforts.

Former INBRE project leader Dr. Sally Molloy

"INBRE helped me turn RNA-seq data into a research program. The support and training were phenomenal and life changing for me." - *Sally Molloy, University of Maine*

Timothy Breton (University of Maine at Farmington) was recently awarded a $551,559 National Science Foundation (NSF) grant to support studies that are a continuation of his INBRE-funded research. Breton and his team of student research assistants discovered a new gene in fish that may have an impact on understanding several diseases found in humans. Undergraduate students from UMaine Farmington, as well as INBRE network members Southern Maine Community College and Bates College, contributed to the research with INBRE support and were co-authors on a related article published in the professional journal *Scientific Reports*.

UMF students work with Timothy Breton (far right) to process tissues at the MDI Bio Lab.

"This work stemmed directly from my prior INBRE award and is a continuation of the project. (The award) is in no small part thanks to the INBRE awards and support for UMaine Farmington that served as the foundation." - *Timothy Breton, University of Maine at Farmington*

Aiden Pike (UMaine '23) participated in an Honors College research-intensive INBRE course and began working in the lab of former INBRE research faculty Dr. Melissa Maginnis at UMaine. Pike then received an INBRE fellowship to work with Bioinformatics Core co-director Dr. Joel Graber, where he used computational tools to analyze the response of different cell types to stress. Pike is now a graduate student in the lab of Dr. Michael Wilczek in the 4+1 Master of Science in Bioinformatics program at the Roux Institute in Maine.

Honors College graduate Aiden Pike